

**Exercise 46**

Sets Find the indicated set if

$$A = \{x \mid x \geq -2\} \quad B = \{x \mid x < 4\}$$

$$C = \{x \mid -1 < x \leq 5\}$$

(a)  $A \cap C$

(b)  $A \cap B$

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**Solution**

The intersection of  $A$  and  $C$  ( $A \cap C$ ) contains the elements they have in common. The same is true for the intersection of  $A$  and  $B$ .

$$A \cap C = \{x \mid -2 \leq x \leq 5\}$$

$$A \cap B = \{x \mid -2 \leq x < 4\}$$